

Serial No.: 10/705,482
Filing Date: November 10, 2003

Examiner: K. Bareford
Art Unit: 1762

CLAIMS

Claim 1. (Currently amended) Process for coating and inspecting drawn metal parts, comprising the steps of:

(a) providing a single ordered stream of drawn metal parts having a repeating sequential order, said repeating sequential order enabling identification of the drawn metal part by the location of the drawn metal part in said ordered stream;

(b) causing said ordered stream to move with an intermittent motion having a move time and a dwell time;

(c) providing a plurality of coating guns firing at normal firing rates during said dwell times, wherein said plurality of coating guns comprise a first coating gun assigned to coat drawn metal parts in a first sequential location in the ordered stream and a second coating gun assigned to coat drawn metal parts in a second sequential location in the ordered stream;

(d) coating a pre-selected portion of a selected drawn metal part during a first dwell time with the a first coating gun;

(e) providing automatic inspection means for determining if the coating is defective;

(f) inspecting the coating of said selected drawn metal part with said automatic inspection means during a second dwell time; and

(g) enabling the a second coating gun to coat drawn metal parts in both the first same sequential location in the ordered stream that was previously assigned to be coated by the first coating gun and in the second sequential location in the ordered stream if the inspected coating is defective.

Claim 2: (Canceled)

Claim 3. (Currently amended) The process according to claim 1, wherein said enabling step (g) comprises firing the second coating gun at twice said normal firing rate.

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Claim 4. (Currently amended) The process according to claim 1 2, wherein said enabling step (g) comprises shifting the position of said second coating gun along said ordered stream and also firing the second coating gun at twice said normal firing rate.

Claim 5. (Currently amended) Process for coating and inspecting drawn metal parts, comprising the steps of:

(a) providing a single ordered stream of drawn metal parts having a repeating sequential order, said repeating sequential order enabling identification of the drawn metal part by the location of the drawn metal part in said ordered stream;

(b) causing said ordered stream to move with an intermittent motion having a move time and a dwell time;

(c) providing a plurality of coating guns operating at normal firing rates during said dwell times, wherein said plurality of coating guns comprise a first coating gun assigned to coat drawn metal parts in a first sequential location in the ordered stream and a second coating gun assigned to coat drawn metal parts in a second sequential location in the ordered stream;

(d) coating a pre-selected portion of a selected drawn metal part during a first dwell time with the a first coating gun;

(e) providing automatic inspection means for determining if the coating is defective;

(f) inspecting the coating of said selected drawn metal part with said automatic inspection means during a second dwell time;

(g) shutting down said first coating gun if the coating is defective, said selected coating gun being identified by the location of the removed drawn metal part in the ordered stream; and,

(h) enabling the a second coating gun to coat drawn metal parts in both the first same sequential location in the ordered stream that was previously assigned to be coated by the first coating gun and in the second sequential location in the ordered stream.

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Claim 6. (Previously presented) The process according to claim 5, wherein said enabling step (h) comprises firing the second coating gun at twice said normal firing rate.

Claim 7. (Previously presented) The process according to claim 5, wherein said enabling step (h) comprises shifting the position of said second coating gun along said ordered stream and also firing the second coating gun at twice said normal firing rate.